REMARKS

In view of the following remarks, reconsideration and further examination are respectfully requested.

New dependent claims 10 and 11 have been added to depend from independent claims 1 and 5, respectively.

Claims 1-3 and 5-9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsuboi et al. (U.S. 5,765,128) in view of Shimada et al. (U.S. 6,285,724). These rejections are respectfully traversed and are believed clearly inapplicable to independent claims 1 and 5 and the claims that depend therefrom for the following reasons.

Independent claims 1 and 5 recite a frame generating method including, in part, inserting a synchronous word (claim 1) or words (claim 5) into data at a position. Claims 1 and 5 recite that (1) the position is determined based on a known time "t" of a noise cycle of a transmission line. Further, claims 1 and 5 recite that (2) the known time "t" (of the noise cycle) is a measurement of time between an occurrence of cyclical noises on the transmission line, wherein the cyclical noises occur at every time "t" in the data. Finally, claims 1 and 5 recite that (3) the length of the synchronous word is approximately equal to a multiple of a length of the noise cycle by a natural number. Tsuboi and Shimada, or any combination thereof, fail to disclose or suggest the above-mentioned distinguishing features (1)-(3) recited in independent claim 1 and 5.

Rather, Tsuboi teaches adding a noise component, via a noise component adding means 5, to an input voice signal, so that the voice signal is no longer periodic (see col. 5, lines 25-35; and col. 17, line 64 – col. 18, line 5). Further, Tsuboi teaches that the purpose of adding the noise component to the voice signal is to prevent the any false synchronization of the voice signal (see col. 5, lines 25-35). This prevention of false synchronization is achieved because the voice signal is no longer periodic due to the added noise component.

Thus, in view of the above, it is clear that Tsuboi teaches that the noise component is intentionally added to the input voice signal, but does not disclose or suggest the occurrence of cyclical noises on the transmission line at every time "t" in the data, as required by claims 1 and 5. In other words, Tsuboi teaches the intentional addition of a noise component, but does not

disclose or suggest inserting a word at a position in data, wherein the position is determined based on an occurrence (i.e., not intentionally added) of cyclical noises, as recited in claims 1 and 5.

In addition, in view of the above, it is apparent that Tsuboi teaches that the noise component is intentionally added to prevent false synchronization of the voice signal by ensuring that the voice signal is not periodic, but does not disclose or suggest that the position (at which the word is inserted) is determined based on a known time "t" of a noise cycle of a transmission line, wherein the known time "t" (of the noise cycle) is a measurement of time between an occurrence of cyclical noises on the transmission line, wherein the cyclical noises occur at every time "t" in the data, as required by claims 1 and 5. Specifically, Tsuboi teaches that the purpose of the intentionally added noise component is to ensure that the voice signal is not periodic, which fails to disclose or suggest and, in fact, teaches away from inserting a word at a position that is based on cyclical noses that occur at every time "t" in the data (i.e., periodic), as recited in claims 1 and 5.

Moreover, as acknowledged in the rejection, Tsuboi fails to disclose or suggest that the length of the synchronous word is approximately equal to a multiple of a length of the noise cycle by a natural number, as required by claims 1 and 5.

In light of the acknowledged deficiencies of Tsuboi, the rejection relies on Shimada for teaching "the length of the synchronous word is approximately equal to a multiple of a length of the noise cycle by a natural number," as required by claims 1 and 5. However, Shimada fails to disclose or suggest any of the above-mentioned distinguishing features (1)-(3) as recited in independent claims 1 and 5.

Rather, Shimada teaches decoding a received information signal by delaying a received signal by a predetermined time interval and multiplying the received signal by the delayed signal to obtain the information signal (see abstract; and col. 2, lines 27-49).

Thus, in view of the above, it is clear that Shimada teaches receiving/decoding an information signal, but does not disclose or suggest inserting a synchronous word into data at a position in order to generate a frame, as required by claims 1 and 5. Additionally, it is noted that

Shimada is directed to a technology for decoding a received (information) signal, rather than an invention which inserts a word into data at a position based on cyclical noises on a transmission line, as required by claims 1 and 5.

Moreover, it is evident that because Shimada does disclose or suggest inserting a synchronous word into data, Shimada cannot be said to disclose or suggest that the length of the synchronous word (to be inserted at a position determined based on a known time "t" of a noise cycle of a transmission line) is approximately equal to a multiple of a length of the noise cycle by a natural number, as required by claims 1 and 5.

Therefore, because of the above-mentioned distinctions it is believed clear that claims 1 and 5 would not have been obvious or result from any combination of Tsuboi and Shimada.

Furthermore, there is no disclosure or suggestion in Tsuboi and/or Shimada or elsewhere in the prior art of record which would have caused a person of ordinary skill in the art to modify Tsuboi and/or Shimada to obtain the invention of independent claims 1 and 5. Accordingly, it is respectfully submitted that independent claims 1 and 5 and claims 2, 3, and 6-11 which depend therefrom are clearly allowable over the prior art of record.

In view of the above remarks, it is submitted that the present application is in condition for allowance and an early notification thereof is earnestly requested. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

Junji KONDOU et al.

By: Andrew L. Dunlap

Andrew L. Dunlap
Registration No. 60,554
Attorney for Applicants

ALD/krg
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
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